SCIENCE & GOVERNMENT REPORT

24th Year of Publication

The Independent Bulletin of Science Policy

Volume XXIV, No. 2 | P. O. Box 6226A, Washington, D. C. 20015 | © February 1, 1994

With Emphasis on Economic Goals

In First Year, Clinton Put His Mark on Federal R&D

One year of Bill Clinton in the White House has brought emphatic changes in government research policies, with priorities, money, and political attention increasingly focused on the quest for economic payoff from federal programs. Technology has the star billing, with science drawing little attention in this Administration prior to recently announced plans for a big policy pow-wow [see P. 3].

The turnabout from the Reagan-Bush era is dramatic. And so is the cordiality that now exists between the Clinton White House and the government's research agencies. This is particularly so in the case of the National Institutes of Health, which Clinton's two predecessors regarded as treacherously aloof from their anti-abortion policies and secretly scheming with Capitol Hill to bust the budget.

In working toward its economic goals, the Clinton Administration has brought research policy into its high political councils. At the center of policymaking for R&D are Vice President Gore and White House Science and Technology Advisor John Gibbons, close colleagues from their long service on Capitol Hill. In science-policy circles, Gibbons is rated the most influential Presidential science advisor since Jerome Wiesner held the advisory post under President Kennedy.

The Administration has formulated its own creation for herding the government's many R&D agencies and programs, the National Council for Science and Technology [SGR, December 1, 1993]. Though nominally chaired by the President, the NCST is staffed by Gibbons' office, and he and Gore are the on-the-scene powers in its workings. Still in its startup phase, the Council has not made itself felt in policy matters. But composed of cabinet and agency heads with major R&D responsibilities, it is the main forum for R&D policy and politics in the Clinton White House.

Political adulation of science as a cultural phenomenon was fading away long before Clinton's election. Today, little is heard of the glory of discovering the secrets of nature, while much is said and attempted about exploiting technology's potential for creating profits and jobs. Last year's collapse of support for the Superconducting Super Collider symbolized this shift. The House yawned at the scientific reveries of the SSC's backers, while the Administration mounted only a paltry rescue effort.

In just one year, the flow of money—the real measure of all things in Washington—has been substantially redirected to mobilize R&D in behalf the Administration's interventionist economic policies. The Pentagon is shifting toward a military-civilian "dual use" strategy in supporting R&D, with $470 million set aside this year for its Technology

(Continued on Page 2)

Science Attaches in the US—P. 4

Gallo Case Rumblings Continue—P. 6

SGR Now Available by Fax

Science & Government Report is now available by fax, thus assuring swift, reliable delivery even before the printed version encounters the perils of the US Postal Service. The charge for fax delivery in the US is $3.85 per issue. For foreign subscribers, rates depend on the country. Fax or write for an order form for fax service: 202/362-2790; Address: SGR, PO Box 6226, Washington, DC 20015.

In Brief

Academic R&D is keeping ahead of inflation, but the growth rate has tapered off in recent years, NSF reports. Figures for 1992 put the federal share of campus R&D spending at $11 billion, a real 5 percent increase. Various other sources provided another $8 billion. The overall growth rate was 4 percent, about 2 percent below the rate that prevailed through most of 1980s.

NIH has appointed a Human Embryo Research Panel to recommend guidelines for funding of human embryo research. Steven Mueller, President Emeritus of Johns Hopkins, serves as overall Chair, with Patricia A. King, of Georgetown Law Center, as Chair for Policy, and Brigid L. M. Horton, of Vanderbilt University, Chair for Science. First meeting is scheduled for Feb. 2. For information: Peggy Schnoor, tel. 301/496-1454; fax 301/402-0280.

Opening in April at the Smithsonian's National Museum of American History: "Science in American Life," a major permanent exhibit, four years in the works, with $5.3 million in support from the American Chemical Society. A Smithsonian announcement says the exhibit "begins in the 1870s with the opening of the first research labs in US universities" and includes a "Hands On Science Center" equipped for "water sample testing, exploring DNA fingerprinting and detecting radioactivity in common household objects."

The Suspense Was Bearable: On January 18, a faxed press release from the House Science, Space, and Technology Committee announced that on January 20, Chairman George Brown (D-Calif.) would reveal whether he would run for re-election. On January 20, in the promised announcement, Brown stated he would run, explaining that "I feel that my job is not yet done."

. . . R&D Under Pressure to Produce Tangible Results

(Continued from Page 1)

Reinvestment Project and a similar amount budgeted for next year.

Heroic, though probably futile, efforts are under way to adapt the Department of Energy's weapons labs to peacetime tasks and close collaboration with industry. And money for industrial partnerships is gushing out of the National Institute of Standards and Technology, the trendy reincarnation of the dowdy National Bureau of Standards.

In the Clintons' health-reform strategy, the focus is on preventive research, with little reference to investigator-initiated basic research—the traditional pride of NIH. Alarmed, the champions of basic science have again taken to public recitations of how the iron lung was banished by basic research that led to polio vaccines and avoidance of great suffering and costs. The Administration, however, is not lavishing new money on NIH or visibly modifying its emphasis on prevention.

In university-based research outside the health fields, the primacy of utilitarian goals is frankly acknowledged by federal managers. Neal Lane, Director of the National Science Foundation, advises academics to recognize that "the world has changed, that it's not really business as usual in Washington...." [SGR, January 15].

Lane insists that old-style basic research can be fruitfully meshed with the Administration's economic priorities, but the Chair of NSF's Senate Appropriations Committee, Barbara Mikulski (D-Md.), has declared her impatience with NSF's ways of doing business. Her blast at NSF, in last year's Appropriations report, was a traumatic event in the Foundation's political life. The NSF budget did rise by a hefty 11 percent, but the Foundation is under heavy pressure and Congressional dictates to perform for industry.

The economic theme is not new in sci/tech relations with Washington. In fact, many of Clinton's most decisive steps in this area can be traced to modest beginnings in the Bush and even the Reagan Administrations, despite their growling abhorrence of both "industrial policy" and bureaucratic efforts to "pick winners" in high-tech markets. Moreover, two of Clinton's most effective administrators in research-related fields are holdovers from the Bush Administration, Daniel Goldin, head of NASA, and David Kessler, head of the Food and Drug Administration.

The difference between then and now is that Reagan and company were ideologically resistant to direct government involvement in the promotion of civilian technology. They yielded on a few points, notably the establishment of SEMATECH, the Pentagon-subsidized industrial consortium created to perform research on semiconductor manufacturing. Bush and his advisers were divided, uncertain, and confused about the proper government role in civilian technology. But the Clinton Administration has no doubts about the desirability of deep government involvement in this area.

On February 22, 1993, just one month after taking office, Clinton issued a policy paper, *Technology for America's Economic Growth: A New Direction to Build Economic Strength*, clearly declaring a major role for government in promoting civilian technology. Essentially a repeat of an election document released by Clinton at a campaign rally of high-tech executives in California, the paper said Washington must go beyond its traditional role of bankrolling basic science and defense R&D.

"Compared to Japan and our other competitors," it stated, "[government] support for commercial technology has been minimal in the US." No more, Clinton said, vowing that "This Administration will modify the ways federal agencies do business to encourage cooperative work with industry in areas of mutual interest." The paper noted that the new policy would increase federal support for "pre-competitive" research—a Bush-Reagan concept that is politically fuss free since such research presumably is available to whole industries rather than a particular firm.

Evolution toward an even more expanded federal role in civilian industry was revealed in an updated version of the Clinton policy paper, *Technology for Economic Growth: President's Progress Report*, issued nine months later, in November. This time, without reference to precompetitive research, Clinton stated that "the federal government has begun to work more closely than ever before with US industry to identify high-priority technology needs and opportunities and to determine the appropriate roles of the public and private sectors."

Citing many new government-industry R&D programs under way or soon to be, the November report noted, "The Administration is continuing to pursue and encourage research alliances in several other strategically important areas, such as new construction technologies, intelligent control and sensor technologies, rapid prototyping, and environmentally conscious manufacturing."

No area was deemed out of bounds for public-private collaboration in research. As for finance on the federal side, the Clinton report noted progress toward bringing government military and civilian R&D from the 60-40 that Clinton inherited to the 50-50 that prevailed prior to the rapid defense

(Continued on Page 3)

© 1994, Science & Government Report, Inc.

Editor and Publisher
Daniel S. Greenberg

Associate Publisher
Wanda J. Reif

Circulation Manager
Glen D. Grant

Published by Science & Government Report, Inc., twice monthly, except once each in January, July, August, and September. Annual subscriptions: Institutions, $425.00 (two years, $730.00). Bulk and individual rates upon request. Editorial offices at 3736 Kanawha St. NW, Washington, DC 20015. Tel. (202) 244-4135. For subscription service: PO Box 6226A, Washington, DC 20015. Tel. 1-800-522-1970; in Washington, DC 785-5054. Reproduction without permission is prohibited. SGR is available on University Microfilms International. Claims for missing back issues will be filled without charge if made within six weeks of publication date. ISSN 0048-9581.

OSTP Holds Forum on Federal Policy for Basic Research

With little advance notice, the White House Office of Science and Technology Policy (OSTP) has put together a public meeting focused on basic research policy, a subject that has heretofore received little attention from the Clinton Administration.

A White House source tells SGR that the pow-wow was conceived "because we have a technology policy but no science policy."

Under the title "Forum on Science in the National Interest: World Leadership in Basic Science, Mathematics, and Engineering," the meeting was set for January 31 and February 1, in Washington, at the National Academy of Sciences. (A report will be carried in the February 15 SGR.)

Plans for the meeting were reported in *Science* of January 14. The first public announcement from the government sponsors of the meeting came in a "media advisory" issued on January 19 by the National Science Foundation, which was assigned the task of press relations. The meeting will take place just a week before release of the President's fiscal 1995 budget, which has been preceded by the usual forewarnings of austerity and disappointment. But whether that sequence of events accounts for the skimpy notice is not known. Clearly, however, many more interested persons would have attended if longer notice had been given.

The meeting, according to the NSF announcement, "will serve as background for a new policy statement," and "will solicit input on four themes: (1) benefits of the national investment in fundamental science; (2) principles and practices influencing the conduct of basic research; (3) challenges and opportunities facing US efforts in fundamental science; and (4) goals for a 21st century science policy."

Listed as "key speakers" are the elite of Washington sci/tech policy, starting with Vice President Gore and Presidential Science Advisor John Gibbons. Also on the agenda: Senator Barbara Mikulski (D-Md.), Chair of the NSF Appropriations Subcommittee; Senator Jay Rockefeller (D-W.Va), Chair of the Subcommittee on Science, Technology, and Space; Neal Lane, Director of the National Science Foundation; Harold Varmus, Director of the National Institutes of Health, and Bruce Alberts, President of the National Academy of Sciences.

The meeting, our White House source says, was cooked up in late November by Varmus, Lane, and MRC Greenwood, OSTP Associate Director for Science. Fourteen scientific and professional organizations were brought in as co-sponsors, among them the American Association for the Advancement of Science, which has assisted with preparations for the meeting. Parsimony was a major consideration in planning, since OSTP has no money for such an undertaking. The Academy helped out by offering a meeting hall gratis, as well it might, since it receives about $200 million a year in federal contracts.

According to the NSF announcement of the meeting, "Up to 200 leaders in science, academia and industry will join federal science officials ... to identify opportunities and challenges facing the US basic science, mathematics, and engineering enterprise."

Listed as co-sponsors with the Academy, the AAAS, and OSTP: Association of American Universities, Carnegie Commission on Science, Technology, and Government, Charles A. Dana Foundation, Industrial Research Institute, NASA, National Association of State Universities and Land-Grant Colleges, NIH, NSF, and the US Departments of Agriculture, Defense, and Energy.

Clinton's Policies

(Continued from Page 2)

buildup that began late in the Carter Administration.

Thus, in just one year, the Clinton Administration has produced massive changes in government R&D programs. This is an area in which the President not only has a lot of maneuvering room, but also finds himself in harmony with Congress, which is also keen for mobilizing R&D for economic gain. In health-care reform, Clinton faces a difficult battle and an uncertain outcome. He's yet to articulate a clear foreign policy, and in economic affairs, he's drifting with favorable tides on which he has had little influence.

In terms of policies fulfilled and changes wrought, Bill Clinton's greatest success so far is in the obscure realm of federal R&D programs.—DSG

Shift to Electronic Publishing

Defense budget cuts and the economies of electronic publishing have brought an end to the paper versions of two unusual publications spawned by the US Navy's postwar interest in keeping in touch with science around the world. One of them is *European Science Notes*, produced since 1947 by the London outpost of the Office of Naval Research. The other is an Asian counterpart, *Scientific Information Bulletin*, a product of ONR's Tokyo office, published since 1976, initially under a slightly different title.

Distributed free upon request, both featured reports by ONR resident scientists, civilian and military, and short-term appointees on visits to research centers in their parts of the world. The reports were often in the style of chatty accounts of what the author saw and heard on a visit to a foreign lab. In a sense, the publications served as a kind of above-board intelligence operation. Both are now putting together their final paper editions, while preparing to go on electronic bulletin boards in the near future.

The European version, which appeared nine times annually in recent years, currently has 3500 subscribers, while the Tokyo edition, published quarterly, has 6700.

The fulltime Tokyo and London staffs for both have been severely pared, but ONR hopes to take up the slack with reports from visitors on tour. For subscription information: Naval Research Laboratory, Att: Code 5234, 4555 Overlook Ave. SW, Washington, DC 20375-5320.

1994 Roster of Science Attaches, Counselors in US

Every couple of years, SGR publishes a roster of the counselors, attaches, and other officials who handle science and technology issues at diplomatic posts and international organizations in the US, mostly in Washington. A little-known and underutilized resource for obtaining information and making contacts abroad, these techno-diplomats are usually responsive to reasonable requests for professional assistance. Following is a current list, pieced together by SGR, updating the list we published March 1, 1992. The proper address is the Embassy of the country named or other organizational name, plus street address, as given below; the telephone area code, unless specified, is that of Washington, DC—202. (A roster of American science counselors and attaches abroad appeared in SGR on May 15, 1993).

Argentina. Mr. Sadi Ubaldo Rife, Attache, Science and Technology (tel. 939-6457; fax 588-0650); 1600 New Hampshire Ave. NW, Wash., DC 20009.

Australia. Mr. Daryl A. Back, Counselor, Industry, Science and Technology (tel. 797-3258; fax 797-3254); Mr. Allan Murray, Counselor, Nuclear (tel. 797-3042; fax 797-3049); 1601 Massachusetts Ave. NW, Wash., DC 20036.

Austria. Mr. Martin Weiss, Counselor, Science and Technology (tel. 895-6708; fax 895-6750); 3524 International Court NW, Wash., DC 20008.

Belgium. Mr. Martin Hinoul, Technology Attache (tel. 625-5810; fax 625-7567); 3330 Garfield St. NW, Wash., DC 20008.

Brazil. Mr. Manuel Montenegro, Secretary, Science and Technology (tel. 745-2750; fax 745-2827); 3006 Massachusetts Ave. NW, Wash., DC 20008.

Bulgaria. Mr. Nikola Mishev, Second Secretary, Science and Technology (tel. 387-7969; fax 234-7973); 6121 22d St. NW, Wash., DC 20008.

Canada. Mr. Michael Stephens, Science Counselor (tel. 682-7793; fax 682-7795); 501 Pennsylvania Ave. NW, Wash., DC 20001.

Chile. Mr. Jorge Litvak, Science Attache (tel. 588-0033; fax 588-0036); 1717 Massachusetts Ave. NW, Wash., DC 20036.

China, People's Republic. Mr. Baozheng Pan, Minister-Counselor, Science and Technology (tel. 328-2543); Mr. Heping Chen, First Secretary (tel. 328-2532); Mr. Minghao Shi, First Secretary (tel. 328-2572); Mr. Weishuang Qu, First Secretary (tel. 328-2533); Mr. Chuanqi He, Second Secretary (tel. 328-2531); Mr. Gang Huang, Second Secretary (tel. 328-2532); Ms. Hua Li, Second Secretary (tel. 328-2530); Mr. Haiying Yuan, Second Secretary (tel. 328-2572); Mr. Ruisheng Yue, Second Secretary (tel. 328-2530); Mr. Hua Liu, Third Secretary (tel. 328-2531); all on fax 265-7523; 2300 Connecticut Ave. NW, Wash., DC 20008.

Czech Republic. Mrs. Jana Simonova, Second Secretary, Science and Technology (tel. 363-6315; fax 966-8450); 3900 Spring of Freedom St. NW, Wash., DC 20008.

Denmark. Mr. Joergen Frits Hansen, Technical Counselor (tel. 212/223-4545; fax 212/754-1904); Consulate of Denmark, 885 2d Ave., 18th Floor, New York, NY 10017.

Egypt. Mr. Kamel Ahmed, Science Counselor (tel. 296-3888; fax 296-3891); 1303 New Hampshire Ave. NW, Wash., DC 20036.

European Communities, Delegation of the Commission. Mr. Jose Costa-Lafarga, Head, Science, Technology, and Education Section (tel. 862-9575); Mrs. Helen Donoghue, First Secretary, Science and Technology (tel. 862-9574); both on fax 429-1766; 2100 M St. NW, 7th Floor, Washington, DC 20037.

European Space Agency. Mr. Ian Pryke, Head, Washington Office (tel. 488-4158; fax 488-4930); 955 L'Enfant Plaza SW, Suite 7800, Wash., DC 20024.

Finland. Mr. Markku Auer, Counselor, Science and Technology; Mr. Mikael Sundholm, Attache, Science and Technology (tel. 686-2080; fax 686-7171); 3201 New Mexico Ave. NW, Suite 270, Wash., DC 20016.

France. Mr. Claude Wolff, Counselor for Science and Technology (tel. 944-6250; fax 944-6219); Mr. Francois Armanet, Scientific Attache, materials (tel. 944-6216); Mr. Jean-Marie Guastavino, Scientific Attache, environment and medical science (tel. 944-6235); Mr. Bruno Oudet, Scientific Attache, information technology (tel. 944-6237); Mr. Remy Lestienne, representative of National Center for Scientific Research (CNRS) (tel. 944-6240); Mr. Bernard Luciani, representative of National Center for Space Exploration (CNES) (tel. 944-6225); all on fax 944-6244; 4101 Reservoir Rd. NW, Washington, DC 20007-2176.

French US sci/tech representatives outside Washington:

Mr. Christian Delacampagne, Scientific and Cultural Attache (tel. 617/354-8863; fax 617/354-0566); 126 Mount Auburn St., Cambridge, Mass. 02138;

Mr. Olivier Massenet, Scientific Attache, electronics (tel. 312/642-7438; fax 312/642-5998); 737 North Michigan Ave., Suite 1170, Chicago, Ill. 60611;

Mr. Gerard Saunier, Scientific and Cultural Attache, energy (tel. 713/528-2231; fax 713/528-1933); 2777 Allen Parkway, Suite 650, Houston, Texas 77019;

Mr. Pascal Revel, Scientific Attache, information systems and aeronautics; Mrs. Michele Durand, Scientific Attache, biotechnology and molecular biology (tel. 415/397-4440; fax 415/397-9947); 540 Bush St., San Francisco, Calif. 94108.

Germany. Mr. Klaus Schroeter, Scientific Counselor (tel. 298-4328;); Mr. Peter Wenzel-Constabel, Counselor, Science and Technology (tel. 298-4330); Mr. Helmut Lueders, First Secretary, Science and Technology (tel. 298-4366); all on fax 298-4249; 4645 Reservoir Rd. NW, Wash., DC 20007.

Great Britain. Mr. Don Rolt, Counselor, Science and Technology (tel. 898-4374); Mr. Ronald Egginton, First Secretary, Technology (tel. 898-4582); both on fax 898-4224; 3100 Massachusetts Ave. NW, Wash., DC 20008.

Greece. Mr. Petros Kontos, Head, Economic Office (tel. 745-7100; fax 265-4291); 1731 21st St. NW, Wash., DC 20009-1004.

Hungary. Mr. Istvan Mezei, First Secretary, Science and Technology (tel. 362-6730; fax 966-8135); 3910 Shoemaker St. NW, Wash., DC 20008.

India. Mr. Ravi Prakash, Counselor, Science and Technology (tel. 939-9803; fax 797-4693); 2536 Massachusetts Ave. NW., Wash., DC 20008; Mr. Lakkavalli Satyamurthy, Counselor, Space (tel. 939-9811; fax 939-9870); 2107 Massachusetts Ave. NW, Wash., DC 20008.

Ireland. Mr. Timothy O'Connor, First Secretary (tel. 462-3939; fax 232-5993); 2234 Massachusetts Ave. NW, Wash., DC 20008.

Israel. Mr. Shalom Yona Ettinger-Eitan, Minister-Counselor, Science (tel. 364-5500; fax 363-4156); 3514 International Drive NW, Wash., DC 20008.

Italy. Mr. Giorgio Mattiello, Scientific Attache, space and

(Continued on Page 5)

In Quotes: A Caustic View of Math Education Reform

From an article in the January* Notices of the American Mathematical Society, *"Cultural Aspects of Mathematics Education Reform," by Michael Fellows (University of Victoria, Canada), Anne Hibner Koblitz (Hartick College, Oneonta, NY), and Neal Koblitz (University of Washington).

•

There is a real danger in the level of hype in the education reform movement. An extreme example of this tendency is the public television program "Square One." Listening to the songs about math, seeing the animation and special effects, and watching the guessing games, one might not notice that the program has virtually no mathematical content. Moreover, the program gives a misleading impression of what mathematics is and how it is used. American youngsters—and, in fact, most teachers and education reformers as well—have grown up in a culture that emphasizes gimmickry, easy technological fixes, and 15-second sound bites on TV. In addition, the computer industry ... has a vested interest in promoting the adoption of technology in the classroom.

Amidst all the hype about computers in the classroom, few have stopped to consider certain basic questions. Do the results justify the vast amounts of resources ... that have been invested? Are other needs (school libraries, released time for teachers, low-tech forms of math enrichment) being neglected? Students have a common perception of mathematics as something formalistic and mechanical. Won't computers make it worse?... They foster a Golly-Gee-Whiz attitude that sees science and math as a magical black box, rather than an area of critical thinking.... Generally, the pupil is programmed to follow a path already laid out by others. The child is physically active but intellectually passive. The computer controls the student, rather than vice-versa....

We should not let those who have money—the foundations and government agencies, the computer companies and textbook publishers—dictate the agenda for reform. The math education reform movement should be open to input from many sources: educators who do not have foundation support as well as those who do, laypeople as well as professionals, people from impoverished schools and universities of the Third World as well as those from the centers of prestige and power in the US.

Sci/Tech Representatives

(Continued from Page 4)

technology (tel. 328-5511); Ms. Maria Livia Tosato, Scientific Attache, health and environment (tel. 328-5590); both on fax 328-5542; 1601 Fuller St. NW, Wash., DC 20009.

Japan. Mr. Yukihide Hayashi, Scientific Counselor (tel. 939-6920); Mr. Akihiro Aoki, First Secretary (tel. 939-6922); Mr. Kimikazu Iwase, First Secretary (tel. 939-6921); all on fax 328-2187; 2520 Massachusetts Ave. NW, Wash., DC 20008.

Korea. Mr. Oh-Kab Kwon, Science Attache (tel. 939-6479; fax 387-0402); 2320 Massachusetts Ave. NW, Wash., DC 20008.

Luxembourg. Mr. Jean Paul Munchen, Minister-Counselor (tel. 265-4171; fax 328-8270); 2200 Massachusetts Ave. NW, Wash., DC 20008.

Madagascar. Mr. Jocelyn V. Rafidinarivo, Counselor (tel. 265-5525; fax 483-7603); 2374 Massachusettes Ave. NW, Wash., DC 20008.

Mexico. Mr. Manuel Cosio-Duran, Minister for Cultural Affairs (tel. 728-1628; fax 462-7241); 1911 Pennsylvania Ave. NW, Wash., DC 20006.

Netherlands. Mr. Paul op den Brouw, Counselor, Science and Technology (tel. 244-9846; fax 966-0728); Mr. Johannes Van Zijst, Counselor, Health and Environment (tel. 244-5300; fax 362-3430); Mr. Frank de Man, Attache, Health and Environment (tel. 244-5300; fax 362-1859); Mr. Frederik J.G. Van de Linde, Attache, Science and Technology (tel. 244-9843; fax 966-0728); 4200 Linnean Ave. NW, Wash., DC 20008.

New Zealand. Mr. David Cunliffe, Second Secretary (tel. 328-4843; fax 667-5227); 37 Observatory Circle NW, Wash., DC 20008.

Norway. Mr. Gunnar Wilhelmsen, Scientific Counselor (tel. 944-8981; fax 337-0870); 2720 34th St. NW, Wash., DC 20008.

Poland. Mr. Andrz E. Rabczenko, Scientific Counselor (tel. 234-3800; fax 328-6271); 2640 16th St. NW, Wash., DC 20009.

Portugal. Mr. Carlos D. Souto, Industrial Counselor (tel. 328-8610; fax 462-3726); 2125 Kalorama Rd. NW, Wash., DC 20008.

Russian Federation. Mr. Lev Mukhin, Counselor, Science and Technology; Mr. Petr K. Bogdanov, First Secretary; Mr. Anatoliy Shurygin, First Secretary; Mr. Vladimir Luchina, Second Secretary; Mr. Sergei Klemengyez, Third Secretary (all on same numbers: tel. 628-7551; fax 347-5028); 1125 16th St. NW, Wash., DC 20036.

Saudi Arabia. Mr. Abdul Turjoman, Scientific Counselor; Mr. Eman Ahmed, Liaison Officer, Science and Technology (both on tel. 298-8857; fax 337-2978); 600 New Hampshire Ave. NW, Suite 500, Wash., DC 20037.

South Africa. Embassy science and technology post discontinued since 1992 listing by SGR. (Embassy main tel. no. 966-1650; fax 363-8620); 3201 New Mexico Ave. NW, Wash., DC 20016.

Spain. Mr. Manuel de la Camera, Minister, Economic and Commercial Affairs (tel. 265-8600; fax 265-9478); 2558 Massachusetts Ave. NW, Wash., DC 20008.

Sweden. Mr. Svante K. Lundin, Counselor, Science and Technology; Assistants to the Counselor: Ms. Therese Falk, Mrs. Cecilia Hellstadius, Ms. Anette Karlsson, Mr. Anders Lindgren, Mr. Per Sundell (all on same numbers: tel. 337-5168; fax 337-6108); 600 New Hampshire Ave. NW, Wash., DC 20037.

Switzerland. Mr. Cristoph von Arb, Counselor, Science and Technology (tel. 745-7955); Mr. Markus Bichsel, Attache, Science and Technology (745-7954); both on fax 387-2564; 2900 Cathedral Ave. NW, Wash., DC 20008.

Thailand. Mr. Apichai Chvajarernpun, Counselor, Science and Technology (tel. 364-2800; fax 362-2806); 4301 Connecticut Ave. NW, Wash., DC 20008.

Tunisia. Mr. Hedi Sioud, Counselor, University Mission (tel. 514/284-9249); 511 Place d'Armes, Suite 501, Montreal, PQ, Canada H2Y 2W7.

Venezuela. Mr. Luis Xavier Grisanti, Minister-Counselor, Petroleum (tel. 342-6822; fax 342-6820); 1099 30th St., Wash., DC 20007.

Yugoslavia, Federal Republic of. Mrs. Ljiljana Borovcanin, First Secretary, Science, Technology, and Economic (tel. 462-6566; fax 797-9663); 2410 California St. NW, Wash., DC 20008.

Saint or Scoundrel? The Gallo Controversy Goes On

Finis to the Gallo case? Legally, yes, on one front, following the government's withdrawal of scientific misconduct findings against the renowned AIDS researcher last November.

Still pending is a dispute with the Pasteur Institute over patent rights and royalties for the HIV blood test, which yield $100,000 a year each for Gallo and his colleague, Mikulas Popovic. But the misconduct case against Robert C. Gallo is showing signs of an afterlife of seething resentment among his detractors and canonization by supporters.

The misconduct case came to an end when the Office of Research Integrity (ORI) withdrew its findings rather than fight an appeal by Gallo that it conceded it would lose. ORI, no bastion of legalistic prowess, whimpered in an announcement that late in the game, it was suddenly confronted by daunting evidentiary hurdles in a newly established appeals process for scientific misconduct cases [SGR, October 15, 1993: "Case Against Gallo Faces Tough Appeals Process"].

Nonetheless, in a capitulation communique, ORI repeated and defended its verdict against Gallo, noting that he had "misstated the role" of Pasteur in AIDS research and, as chief of laboratory at the National Cancer Institute, had failed to share research materials with other scientists. Regardless of what the law says, ORI asserted, the "scientific community has a low threshold of tolerance for false statements." The ORI statement also saluted "the importance of clarity, accuracy and honesty in science"—thus seemingly suggesting that such qualities are of trifling importance to the law.

Gallo as saint achieved its apotheosis in the *New York Times Magazine* December 26 in an article by Nicholas Wade, Science Editor of the *Times*. Though conceding that "Gallo bruised many competitors," Wade concluded: "His critics mistook his sharp elbows for itchy fingers. They were far too slow to correct their judgment of the one scientific hero who has yet emerged in the fight against AIDS."

A contrary view is expressed in a letter dated December 30, 1993, to ORI by Donald P. Francis, who headed the AIDS Laboratory at the Centers for Disease Control in the early days of AIDS research, and who was among the many researchers interviewed by ORI investigators. Responding to ORI's notification that the Gallo case was over, Francis wrote that "the case is a sore in the history of science which will not disappear. The fact that NIH may not want to proceed is an internal NIH issue.... But I fear the sore will continue to fester and will not go away."

Francis continued: "The facts of the Gallo case are clear. Unbiased scientists in the field know what happened. I, because of my position as head of the CDC's AIDS Laboratory, saw it up close. In my opinion, Dr. Gallo's behavior was disgraceful, an insult to the integrity of all scientists. Dr. Gallo purposely tried to rob the credit for the discovery of HIV-1 from the *Institut Pasteur*. It was not passive or an oversight....

"The stories of Dr. Gallo's unprofessional behavior," Francis added, "go on and on. It is indeed sad. He has contributed and could contribute to science. But when his ethics are so blatantly compromised, how can we believe any of his reports? If NIH refuses to confront these issues, how can we expect junior scientists not to emulate the Bob Gallo's of the world?"

Meanwhile, raw feelings about the outcome of the Gallo case are reported to exist among members of the so-called Richards Panel, an advisory group appointed by the Director of NIH early in the case "to advise on the process involved in the various steps of the inquiry and later to comment on the final written report." Chaired by Professor Frederic M. Richards, a molecular biologist at Yale University, the panel, in a report in January 1992, generally approved of the investigation and findings against Gallo and his laboratory colleague, Mikulas Popovic. But it also came down hard on Gallo and Popovic, accusing them of behavior that "constitutes intellectual recklessness of a high degree—in essence, *intellectual appropriation* of the French viral isolate."

The Richards report also noted "a *pattern* of behavior on Dr. Gallo's part that repeatedly misrepresents, suppresses and distorts data and their interpretation in such a way as to enhance Dr. Gallo's claim to priority and primacy."

Richards and his colleagues have remained publicly silent about the outcome of the Gallo case, but SGR hears that several persons who served on the advisory panel are livid about ORI's refusal to contest Gallo's appeal.

Still to be heard from is Rep. John Dingell, the Congressional hawk on scientific misconduct. Members of Dingell's staff have remained in very close touch with the Gallo proceedings. A lengthy staff report on the case is nearing completion. But with Congress limbering up for the new session, Dingell and staff have not yet decided how, if at all, they will deal with the Gallo affair and, particularly, the government's response to allegations of wrongdoing by one of its most celebrated researchers.

Meanwhile, Gallo and Popovic have survived another legal challenge, this one concerning allegations that they committed perjury in applying for patents for the AIDS blood test in 1984. Citing the statute of limitations, the ORI decision to drop the Gallo misconduct case, and doubts about evidence and jurisdiction, federal prosecutors advised the HHS Inspector General that they would not prosecute the case. Dated January 19, the letter announcing the decision ended on a strange note:

"In deciding not to prosecute, we recognize that this case transcends the normal type of criminal case and that the conduct of these two noted scientists reflects upon the integrity of the scientific process, the National Cancer Institute, and indeed, the conduct of our Government as a whole. However compelling is the need to provide a forum for historical accuracy on these issues, that noble desire cannot be a substitute for evidence, nor does it justify using the criminal court in place of the court of public opinion."—DSG

In Print

(Continued from Page 8)

Health Data in the Information Age: Use, Disclosure, and Privacy ($45, plus $4 for shipping; available in about one month), from the Institute of Medicine (IOM), health-policy arm of the Academy, says computerized patient data can contribute to the efficiency of health-care systems, but warns that safeguards, including legislated protections, are needed to assure privacy. The report was prepared by a committee chaired by Roger J. Bulger, President and Chief Executive of the Association of Academic Health Centers. Molla S. Donaldson of the IOM staff was Study Director.

Order from: National Academy Press, 2101 Constitution Ave. NW, Box 285, Washington, DC 20055; tel. 1-800/624-6242; in Washington, DC: 334-3313.

Secrecy and Government Bulletin (monthly, 2 pp., $20 per year; free to publicly accessible libraries), from the Federation of American Scientists, a watchdog publication "To Challenge Excessive Government Secrecy and To Promote Public Oversight and Free Exchange In Science, Technology, Defense, and Intelligence." Published since July 1991, the *Bulletin* is usually first, and often the only one, with information about the esoterics of government secrecy policies and practices. Publication is supported by grants from the Rockefeller Family Fund, the J. Roderick MacArthur Foundation, and the C.S. Fund.

Order from: Federation of American Scientists, 307 Massachusetts Ave. NE, Washington, DC 20002; tel. 202/675-1012.

Science International (no charge), quarterly news report of the International Council of Scientific Unions (ICSU), umbrella organization of 115 national science academies, research councils, and international disciplinary societies. The latest issue (December 1993, 39 pp.) is devoted mainly to ICSU's General Assembly and Executive Board meetings last fall in Chile. Also included are listings of recent ICSU publications, meeting schedules, personnel changes, etc.

Order from: ICSU Secretariat, 51 Blvd. de Montmorency, Paris 75016, France; tel. (33-1) 4525-0329; fax (33-1) 4288-9431.

Scientific Research in Israel (550 pp., $35), ninth edition, dated 1992 (sorry, it just arrived at SGR), covering all fields of science and technology, lists over 800 research centers, laboratories, and high-tech firms, with names of directors, summaries of activities, addresses, phone and fax numbers. There's also a section on the organization of R&D in Israel, plus statistics on R&D spending and education. The directory, published by the Israeli Ministry of Science and Technology, refers in the preface to "an even larger Tenth Edition in 1994."

Order from: Ministry of Science and Technology, Distribution Dept., PO Box 18195, attn. Yacov Dari, Jerusalem 18195, Israel; tel. 02-824021; fax 02-820591.

Guide to NIST (116 pp., no charge), an outline of programs and research facilities available for outside users at the National Institute of Standards and Technology, homebase of the fast-growing Advanced Technology Program (ATP) and other extramural schemes warmly favored by the Clinton Administration for promoting industrial innovation. Entries are accompanied by names of contacts, with phone numbers and e-mail addresses. In a foreword, NIST Director Arati Prabhakar says NIST plans to "transform itself from primarily a measurement laboratory program with three relatively small extramural programs to a full-service technology development, funding, extension, and quality improvement partner for US industry."

Budget backing from the White House is clearly evident. In Clinton's first year, the overall NIST budget rose from $384 million to $520 million, with ATP soaring from $67 million to $200 million; the long-range plan for ATP calls for $750 million by 1998.

Order from: Publications and Program Inquiries, E106 Administration Building, NIST, Gaithersburg, Md. 20899; tel. 301/975-3058; fax 301/869-6787.

Chemical Weapons Convention Bulletin, quarterly ($35 per year) produced by the Program on CBW Armament and Arms Limitation, jointly sponsored by Harvard University and Britain's Sussex University. The December issue (28 pp.) reports on chemical weapons discussions in the Middle East, developments in the destruction of the US CW stockpile, diplomatic news, recent publications, etc. The *Bulletin* is co-edited by Matthew Meselson, Department of Biochemistry and Molecular Biology, Harvard, and Julian Perry Robinson, Science Policy Research Unit, Sussex.

Order from: Committee for National Security, Suite 600, 1601 Connecticut Ave. NW, Washington, DC 20009; tel. 202/745-2450; fax 202/667-0444.

To Order or Renew

Science & Government Report
Northwest Station, Box 6226A
Washington, D.C. 20015

☐ Renew my subscription ☐ Enter my subscription

Institutional subscribers: one year, $425.00 ☐
two years, $730.00 ☐

Non-USA airmail, $35.00 per year; non-USA surface mail, $15.00 per year additional

☐ Check enclosed ☐ Please Bill
Please charge to: ☐ MasterCard ☐ VISA

Account# _____ Exp.date _____

_____
Signature

Name _____

Address _____

_____ Zip _____

Toll-Free Subscription Service: 1-800-522-1970
In Wash., D.C.: 785-5054 / FAX: (202) 362-2790

In Print

Official reports and other publications of special interest to the research community

(Copies of publications listed here are available from the indicated sources—not from SGR)

Human Frontier Science Program (16 pp., no charge), slick brochure from the Japanese-initiated, multi-national Human Frontier program, telling a bit about its research activities, but nothing in depth. Annual disbursements are reported at $37 million, with the money going to scientists in collaborating countries—Japan, which provides 80 percent of the funds, plus the US, Canada, and most European nations, which provide the balance. When initially proposed by Japan in the mid-'80s, billions in research support were spoken of, and the stated emphasis was on environmental purity. Reagan policymakers, however, shied away for fear that the then-affluent Japanese were craftily seeking to buy their way into the west's leading biotech labs. Finally agreed to was a scaled-down version, focused on what's described as "basic research for the elucidation of brain functions and that of biological functions through molecular level approaches." Headquartered in Strasbourg, France, the program got under way in 1990 and reports that through 1993, it has financed 140 research grants, 450 long-term fellowships, 77 short-term fellowships, and 17 workshops.

Order from: Human Frontier Science Program Organization, Tour Europe, 20, Place des Halles, 67080 Strasbourg Cedex, France; tel. (33) 8832 8833; fax (33) 8832 8897.

Pesticides on Farms: Limited Capability Exists to Monitor Occupational Illnesses and Injuries (GAO/PEMD-94-6); 58 pp., no charge), from the General Accounting Office (GAO), requested by Senator Patrick Leahy (D-Vt.), Chairman of the Committee on Agriculture, Nutrition, and Forestry, says a few national and state reporting systems provide "some information about *acute* pesticide-related illnesses that occur in the United States. However, except for special research studies, none addressed delayed onset or chronic health effects." The report specifically discusses pesticide-reporting programs in Arizona, California, Florida, Iowa, New York, Oregon, Texas, and Washington.

Also from the GAO: ***Nuclear Health and Safety: Examples of Post-World War II Radiation Releases at US Nuclear Sites*** (GAO/RCED-94-51FS; 19 pp., no charge), part of the recent deluge from the archives of nuclear irresponsibility. This one briefly discusses over a dozen "planned radioactive releases" at US nuclear facilities in the 1940s and early '50s, with most attention in the GAO report focused on the "Green Run" test, secretly conducted at Hanford, Washington, in 1949. The GAO states that emission-control procedures were "intentionally relaxed" for the Green Run exercise, and that "as a result of these steps, the test released about 27,800 curies of radioactive production off-gases, including about 7800 curies of iodine and about 20,000 curies of less hazardous xenon.... After the test, radioactive iodine was found on vegetation over large areas of southeast Washington and Oregon..." A report on the test, prepared in 1950, "remained classified in its entirety—and the test remained undisclosed—for almost four decades," the GAO states. The GAO report also discusses deliberate radiation releases at Oak Ridge, Tenn., Los Alamos, New Mexico, and Dugway, Utah. Senator John Glenn (D-Ohio), Chairman of the Governmental Operations Committee, requested the report.

Order from: USGAO, PO Box 6015, Gaithersburg, Md. 20884-6015; tel. 202/512-6000; fax 301/258-4066.

Keeping Pace With Science and Engineering: Case Studies in Environmental Regulation (281 pp., $39.95, plus $4 for shipping), papers presented at a symposium sponsored in February 1993 by the National Academy of Engineering. Central theme, as stated by NAE President Robert M. White: "Does the current environmental regulatory system strike an appropriate balance between dynamic change and stability?" On the basis of the case studies, "the answer may be 'no,' " replied J. Clarence Davies, Director of the Center for Risk Management, Resources for the Future, in an overview of the proceedings, though he adds that "the question is in reality very complex and does not lend itself to simple answers." Titles of the case studies: "Nutrient Loading to Surface Waters: Chesapeake Bay Case Study," "Tropospheric Ozone," "Municipal Waste Combustion and New Source Performance Standards: Use of Scientific and Technical Information," "Trihalomethanes and Other Byproducts Formed by Chlorination of Drinking Water," "Acid Deposition," "Formaldehyde Science: From the Laboratory to the Regulatory Arena," "The Dioxin TCDD: A Selective Study of Science and Policy Interaction." Charles R. O'Melia, Professor of Environmental Engineering, Johns Hopkins University, chaired the Symposium Steering Committee. Myron F. Uman of the Academy Staff was Project Officer.

Also from the Academy: ***Building Consensus Through Risk Assessment and Management of the Department of Energy's Environmental Remediation Program*** (108 pp., $10), report of a committee, specially appointed by the Academy at DOE's request, to help DOE reassess the risks of its hyper-polluted real-estate empire, with particular emphasis on determining "whether a risk-based approach to evaluating the consequences of alternative actions is feasible and desirable." Yes, responded the committee, chaired by Frank Parker, Professor of Environmental and Water Resources Engineering, Vanderbilt University. The committee noted, however, that "The lack of trust in DOE and its site operators is a major impediment to reaching consensus not only on the type and degree of remediation needed, but also on the process to reach these decisions." Based on a workshop held last November, the report is accompanied by a computer disk containing a transcript of the proceedings; there's also a US map showing DOE's 17 major restoration projects. Paul Gilman of the NAS staff was Project Director for the report.

(Continued on Page 7)